



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/590,527	06/08/2000	Salman Akram	4101US (99-0572)	1156

7590 02/01/2005

Brick G Power  
Trask Britt  
PO Box 2550  
Salt Lake City, UT 84110

EXAMINER

MITCHELL, JAMES M

ART UNIT PAPER NUMBER

2813

DATE MAILED: 02/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b>	Application No. <b>09/590,527</b>	Applicant(s) AKRAM, SALMAN	
	Examiner James M. Mitchell	Art Unit 2813	

**--Th MAILING DATE of this communication appears on th cover sheet with the correspondence address --**

THE REPLY FILED 10 January 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY [check either a) or b)]**

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 38-69.

Claim(s) withdrawn from consideration: \_\_\_\_\_

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
10. ☐ Other: \_\_\_\_\_

*Craig A. Thompson*  
**CRAIG A. THOMPSON**  
**PRIMARY EXAMINER**  
**1-28-05**

Continuation of 5. does NOT place the application in condition for allowance because: Applicant's arguments filed December 9, 2004 have been fully considered but they are not persuasive.

Applicant argues several points: 1) Hashimoto does not teach a test substrate; 2) the bumps of Hashimoto are not mutually adhered; 3) the prior art fails to teach stabilizers elongated in a direction parallel to a plane in which the substrate is located; 4) the prior art does not show a semiconductor wafer with stabilizers; 5) there is no teaching of a chip scale package with stabilizers; 6) no motivation to replace a permanent substrate with a temporary substrate; 7) Hashimoto teachings are only limited to a carrier substrate; and 8) Sasaki only includes a single layer, not a plurality of superimposed, contiguous mutually adhered layer.

In response:

1 & 6) examiner re-emphasizes that Hashimoto was not relied on to show a test substrate, but for its teaching of stabilizers, the primary reference which was APA, contained an explicit teaching of a test substrate, 210 (App. Spec. Page 3). Examiner has made no suggestion to replace a temporary substrate with a permanent, thus applicant's argument is deemed moot;

2) Hashimoto explicitly states that the bumps are bonded together (Col. 4, Lines 22-26);

3) the plain and ordinary meaning of elongate only requires that material extend/ stretch out over a length, as such, stabilizers/bumps that extend horizontally and/or laterally are elongated;

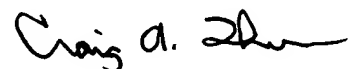
4) a die/ chip comprises a thin slice of semiconductor material and therefore is within the broad scope of the plain and ordinary meaning of a wafer;

5) a bare chip with attached electrodes and stabilizers and a chip scale package are not mutually exclusive, furthermore because applicant's claim recites comprising language there is no limit to how little (none) or much the chip has to be further protected (i.e. cover, encapsulant etc.). Likewise, applicant's specification Page 2, recites that the semiconductor device includes CSP, which is illustrated in Fig 1;

7) applicant's suggestion that Hashimoto's teachings are limited to a carrier substrate amounts to an argument that APA and Hashimoto are nonanalogous, however, since both APA and Hashimoto deal with placing chip/die on a substrate (test, permanent or otherwise) the references are deemed to be in the same field and in addition stabilizers/spacers are used in the art on both test and permanent substrates (i.e. Uchida and Chang). See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). Because, the claim limitation that spacers are formed from superimposed...contiguous layers does not further define that the material are made of different types of layers, examiner interprets the limitation as producing only one layer (all matter is made of superimposed layers, i.e. atoms, molecules etc.);

8) Sasaki was only relied to teach a particular type of insulating material therefore how many layers it may or may not have is not pertinent to its disclosure.

In light of examiner's responses, supra, applicant's arguments are deemed unpersuasive and the present rejection maintained.



CRAIG A. THOMPSON  
PRIMARY EXAMINER

1-28-05